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Office of the Secretary  
Federal Communications Commission  
Washington, DC 20554

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Comments in response to FCC 95-255 FNPRM  
(further notice of proposed rule making)

Subject: Methods to promote more efficient and effective use of the  
PLMR bands below 800 MHz

Sirs:

I am James A. Medlock and I have been deeply involved with the design, marketing, customer support, and system implementation aspects of radio communications since 1965. My experience covers land mobile, maritime, radar, radio aids to navigation, and satellite communications conveying voice, control, timing, and data using the HF through microwave bands. I earnestly feel that the FCC should evaluate my comments and suggestions for the fair and equitable resolution of the Public Land Mobile frequency bands.

In contrast to the concepts reported by the FCC in this FNPRM, I implore the FCC to seriously reconsider the use of "market place forces" in a private sector of the public common use of resources. My stance is firmly the resolution that "market place forces" and their resultant creation of "virtual value" does not have a valid, wide based beneficial position with the private radio services. The benefits of the "virtual value" would go only to those investors who created wide area system only in those areas where a sufficiently dense customer base would insure profit of operations, just as with cellular radio. These services regulated by part 90, being private (each service not offered to the majority of the public, not offered as a source of revenue for the provider, and the users cannot be classed as incidental subscribers of the service) do not fit with the business concepts of having a sufficient customer base to support capital investment in infrastructure, continued steady revenue from subscribers, and management of service operations to insure sufficient profit margin. This would result in all spectrum being "owned" by the large consortiums with service provided only in high population density areas, and any entity wishing radio communications would have to subscribe to the provider. In short the private radio services should stay private, available to those who need it for "inside" communications or for safety purposes. In the private radio service "marketplace forces" automatically connote a basis of competition for the acquisition of services rather than an equitable availability for those who need it to increase their operating efficiencies or safety factors.

This concept of "market place forces" purported by the FCC obviously originated from those services which are offered to subscribers as a source of revenue for the providers. The FCC's sense that there is little incentive to economize on the efficiency of the spectrum because the users do not pay for the spectrum is purely misleading. This evaluation of the FCC is based upon past advances in communications technology which was eagerly sought and adopted by these very same users to which the FCC refers (changes such as reduction in occupied bandwidth by modulation deviation reduction, amplitude companded single-sideband, adoption of printed message communications, etc has been accomplished). History shows that these very same users started the request for additional or more efficient spectrum use based on the need to

supply additional communications capability for the performance of their tasks. The FCC view that the "shared" nature of these radio services will preclude the use of advanced technology (such as TDMA, Trunking, etc.) is again misleading, these attributes are now in operation with these services and technology in the 800 MHz portion of the spectrum and are also currently being implemented in very large cooperative state wide systems (Michigan, Colorado for example among others) currently under development.

The real hindrance is the lack of available spectrum necessary to make a "side\*step" move with the implementation of the new technology so as to provide uninterrupted communications service to the existing users. The analogy is similar to the "chicklet" puzzle where only one piece at a time could be moved in order to rearrange all pieces for the solution. In this spectrum case, each "piece" is in use and one of them must be moved first to allow all other to move. With the advanced synthesized wide-band radio products available today, this task is easier and less costly than initially perceived, the only limiting factors are antenna, combiner, and multicoupler band limits. Users in an area who desire to advance in technology would simply make a binding arrangement for shared cooperative use, design the new system, and submit both these documentation with a request for "clean" frequencies to the state/regional frequency coordinator for authorization. The spectrum from which they migrated would then become available for the next system "shift."

The FCC is hereby requested to maintain the private nature (not a source of revenue for the providers) of the PLMRS. Incentives should not be monetary (positive for the provider and punitive for the user) but rather should focus on the additional communications capabilities made available by the use of advanced technologies, in other words, those who find technology to provide more communications for them should benefit solely from that and not from the reward of revenue or additional spectrum. This concept is much more equitable for the varied population densities of coverage areas and the varied economic status of the users.


The guiding objectives as reported by the FCC in making their decisions seem to be well founded except for number four "encouragement of efficient spectrum usage", this encouragement; a) should not be economic based on spectrum consumption, b) is not needed at all in the private radio services, c) is not needed in all geographic parts of the country, and d) there should not be a punishment for failing to use high-technology for spectrum efficiency, specially for those users in low density population areas. Additionally, this push as presented by the FCC for the use of advance technology is focused on the user base and not to the service provider. The actual incentive in the PLMRS being the obvious need for more communications capability negates the monetary "virtual value" of the spectrum to the government and to service providers. The concept of user fees has no place in the free enterprise based private radio spectrum area. User fees are a source of income to the Federal Govt. and in reality constitute a "tax" on a natural resource which belongs to all citizens. There are other radio services more suited for this concept as presented by the FCC. An additional detrimental affect of selling spectrum would be the loss of many small radio shops and small shared system providers. This has already been witnessed in the SMR consolidations. A definite distinction between shared local area communications systems and large, consolidated wide area communications systems must be established in order to properly administrate the equitable use of the spectrum. Perhaps wide area system should be considered as those which transgress state boundaries and small local area system should be considered as those which do not transgress more than 5 miles beyond state boundaries with their intercommunications and control links (some mountain coverage sites which provide optimum coverage are located outside state of coverage boundaries).

The PLMRS is for all users who need communications for efficiency of their operation and the FCC should not impose monetary measures which will segregate those who cannot pay the higher cost of fees. Those who can afford the higher costs can migrate from the shared concept of the PLMRS to the service providers, such as , SMR, cellular, PCS, etc., as they desire. The incentive to use higher technology already exists as demonstrated by the requests to the FCC to make more spectrum available. As witnessed from past technology improvements (HF spectrum from AM to SSB, HF spectrum rechannelization, VHF/UHF decrease in occupied bandwidth, etc.) there seems to be little doubt that higher technology will be eagerly employed by the users. The FCC is requested to consider the migration to new technology usage based on segmental implementation of the available bands and based on implementation of new technology in new radio system purchases.

Considering the public safety segment of the spectrum, the concepts of spectrum value does not have a place here when one considers that the activities in this service are in support of the public en masse. It seems ludicrous that the public should levy punitive charges upon itself for not employing advanced technology which, it not only has already asked for but desperately needs, in order to supply the necessary as well as the advanced services required. The public entities which utilize spectrum are having to operate under reduced funds, yet still supply the same or higher levels of services. The only way to accomplish this increase in services is by increasing efficiency of operations through the upgrading of infrastructure, services, and cooperative arrangements, the significant part of which focuses on the requirement for more communications capability. The FCC can help the public sector by not increasing operating costs, by making additional advanced communications services easily attainable, and by not allowing the "virtual value" of the radio spectrum driving the increase in inflation. The money which the FCC claims to be available for this spectrum has to come from one place, the people, and claiming that something has a high value without having any real value is inflation!

The FCC must realize that private radio is just that, private, and that the money in spectrum must remain with the broadcast services and public correspondence services will ensure a fair and equitable usage of the spectrum to the private and municipal services.

Sincerely,



James A. Medlock